

# Schmid & Partner Engineering AG

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## Calibration Certificate

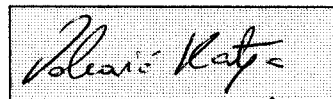
### Dosimetric E-Field Probe

Type:	<b>ET3DV6</b>
Serial Number:	<b>1387</b>
Place of Calibration:	<b>Zurich</b>
Date of Calibration:	<b>February 22, 2002</b>
Calibration Interval:	<b>12 months</b>

Schmid & Partner Engineering AG hereby certifies, that this device has been calibrated on the date indicated above. The calibration was performed in accordance with specifications and procedures of Schmid & Partner Engineering AG.

Wherever applicable, the standards used in the calibration process are traceable to international standards. In all other cases the standards of the Laboratory for EMF and Microwave Electronics at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland have been applied.

Calibrated by:



Approved by:



# Probe ET3DV6

SN:1387

Manufactured:	September 21, 1999
Last calibration:	September 22, 1999
Recalibrated:	February 22, 2002

Calibrated for System DASY3

## DASY3 - Parameters of Probe: ET3DV6 SN:1387

### Sensitivity in Free Space

NormX	<b>1.58</b> $\mu\text{V}/(\text{V}/\text{m})^2$
NormY	<b>1.67</b> $\mu\text{V}/(\text{V}/\text{m})^2$
NormZ	<b>1.67</b> $\mu\text{V}/(\text{V}/\text{m})^2$

### Diode Compression

DCP X	<b>97</b>	mV
DCP Y	<b>97</b>	mV
DCP Z	<b>97</b>	mV

### Sensitivity in Tissue Simulating Liquid

Head	<b>900 MHz</b>	$\epsilon_r = 41.5 \pm 5\%$	$s = 0.97 \pm 5\%$ mho/m
Head	<b>835 MHz</b>	$\epsilon_r = 41.5 \pm 5\%$	$s = 0.90 \pm 5\%$ mho/m
ConvF X	<b>6.6</b> $\pm 9.5\%$ (k=2)		Boundary effect:
ConvF Y	<b>6.6</b> $\pm 9.5\%$ (k=2)		Alpha <b>0.40</b>
ConvF Z	<b>6.6</b> $\pm 9.5\%$ (k=2)		Depth <b>2.38</b>
Head	<b>1800 MHz</b>	$\epsilon_r = 40.0 \pm 5\%$	$s = 1.40 \pm 5\%$ mho/m
Head	<b>1900 MHz</b>	$\epsilon_r = 40.0 \pm 5\%$	$s = 1.40 \pm 5\%$ mho/m
ConvF X	<b>5.4</b> $\pm 9.5\%$ (k=2)		Boundary effect:
ConvF Y	<b>5.4</b> $\pm 9.5\%$ (k=2)		Alpha <b>0.57</b>
ConvF Z	<b>5.4</b> $\pm 9.5\%$ (k=2)		Depth <b>2.18</b>

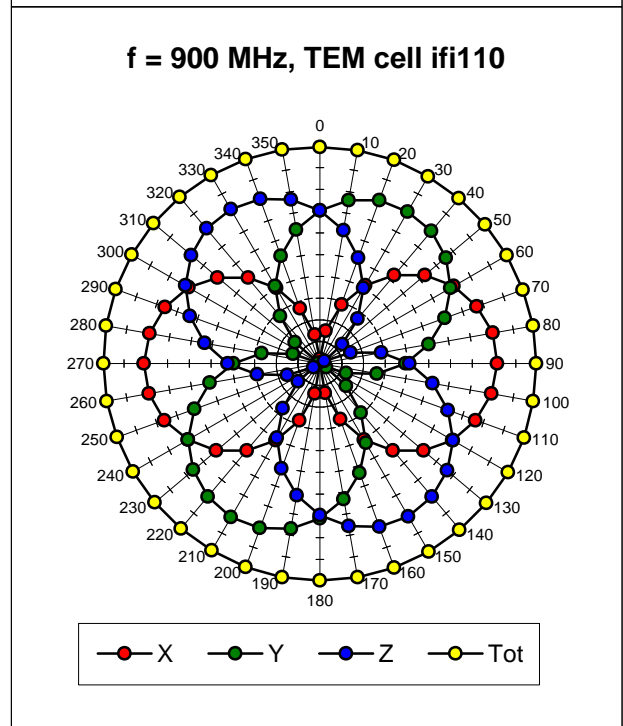
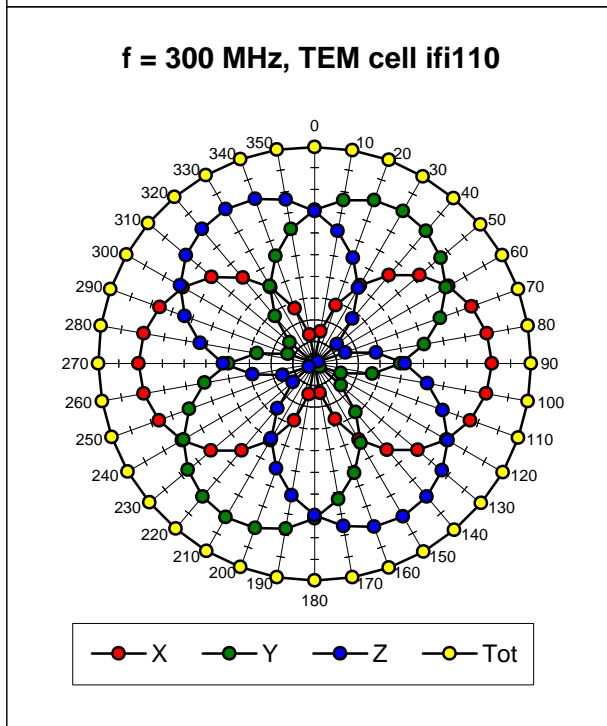
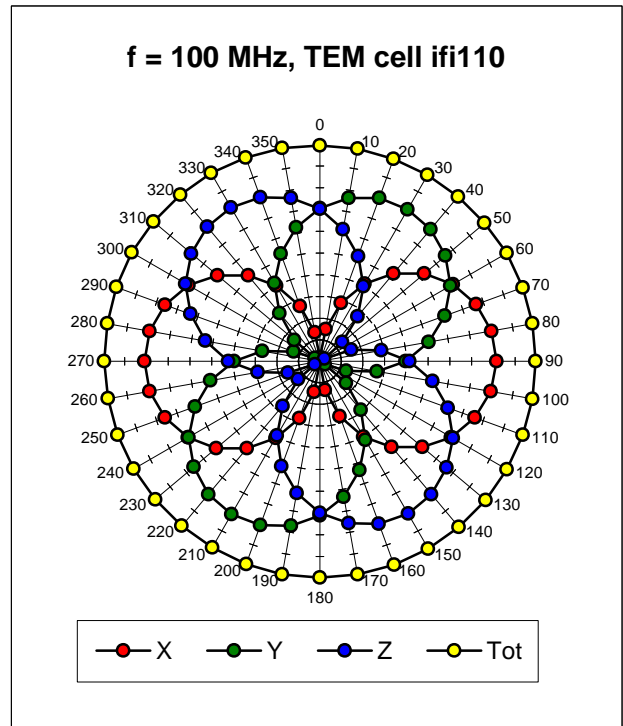
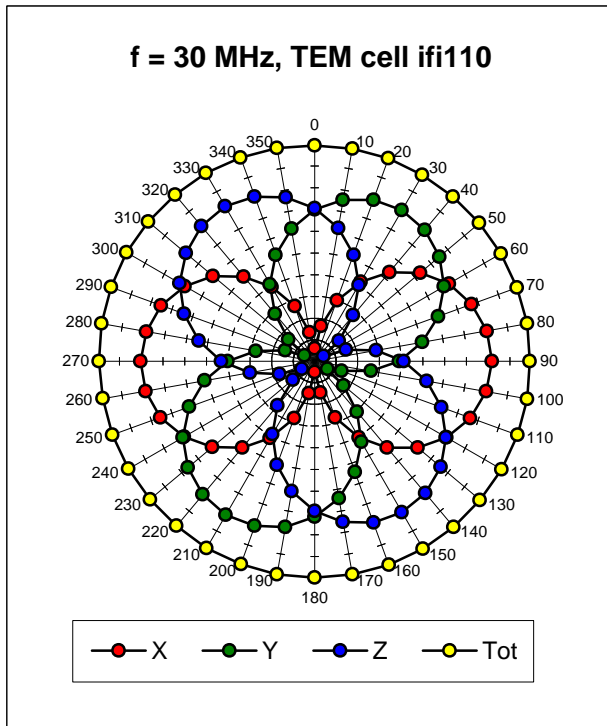
### Boundary Effect

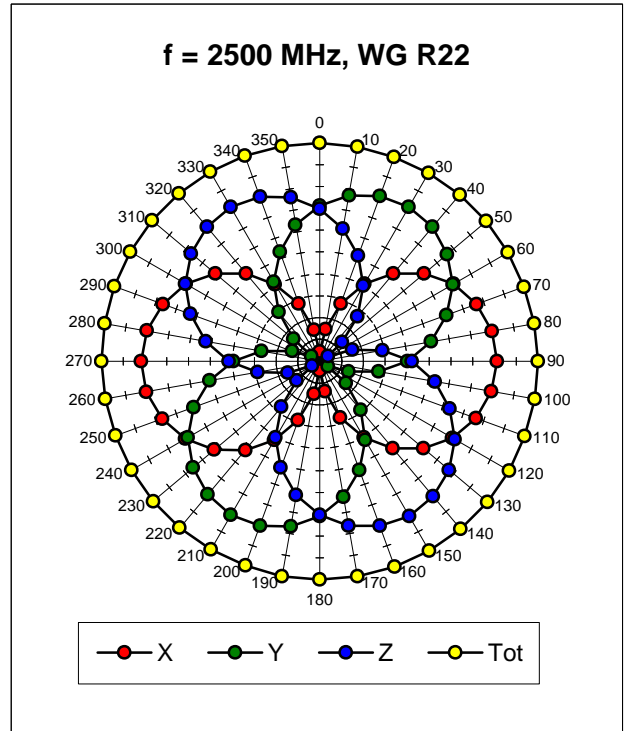
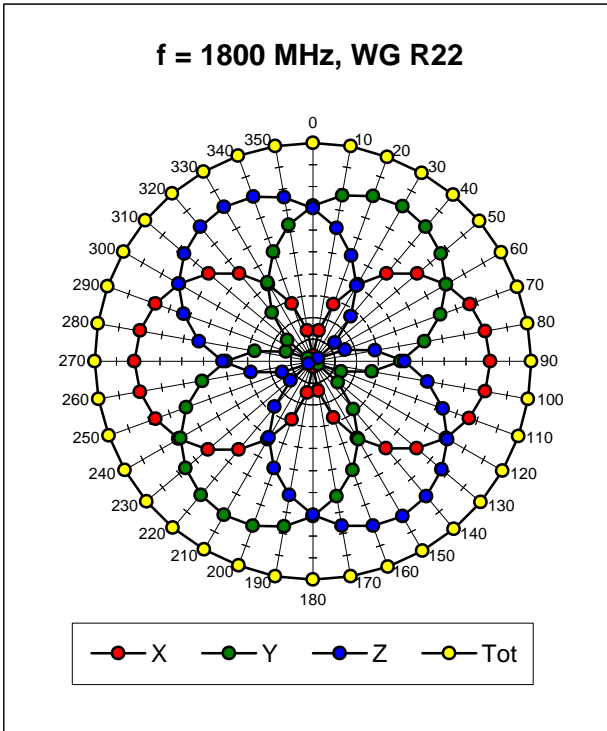
Head	<b>900 MHz</b>	Typical SAR gradient: 5 % per mm	
	Probe Tip to Boundary	<b>1 mm</b>	<b>2 mm</b>
	SAR <sub>be</sub> [%] Without Correction Algorithm	9.7	5.4
	SAR <sub>be</sub> [%] With Correction Algorithm	0.3	0.6
Head	<b>1800 MHz</b>	Typical SAR gradient: 10 % per mm	
	Probe Tip to Boundary	<b>1 mm</b>	<b>2 mm</b>
	SAR <sub>be</sub> [%] Without Correction Algorithm	11.5	7.3
	SAR <sub>be</sub> [%] With Correction Algorithm	0.1	0.3

### Sensor Offset

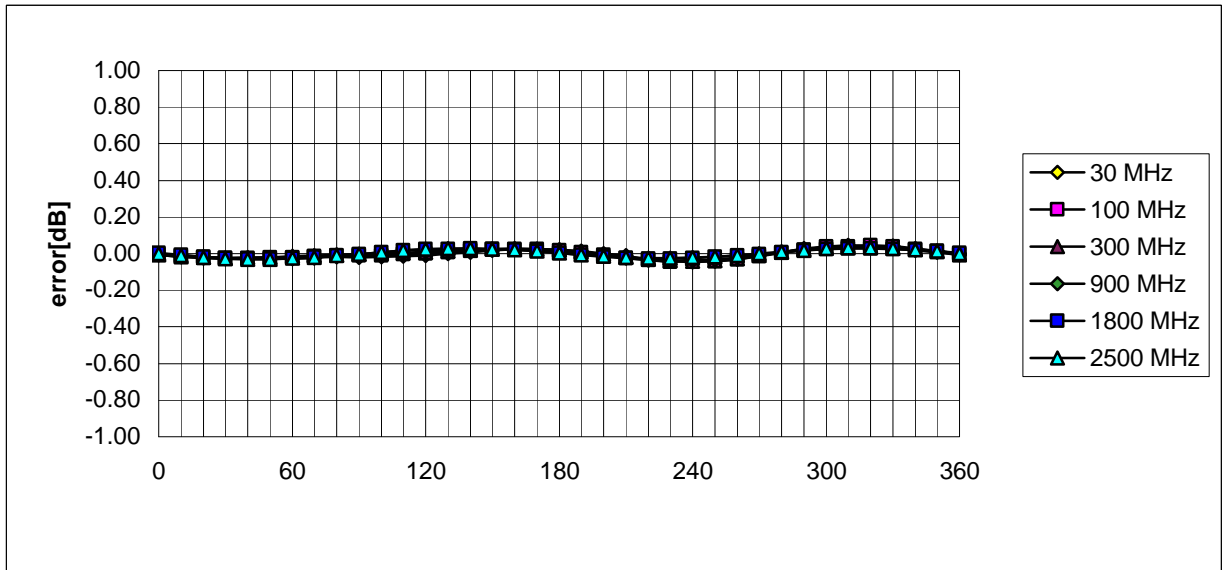
Probe Tip to Sensor Center	<b>2.7</b>	mm
Optical Surface Detection	<b>1.3 <math>\pm</math> 0.2</b>	mm

### Receiving Pattern ( $\hat{f}$ ), $q = 0^\circ$



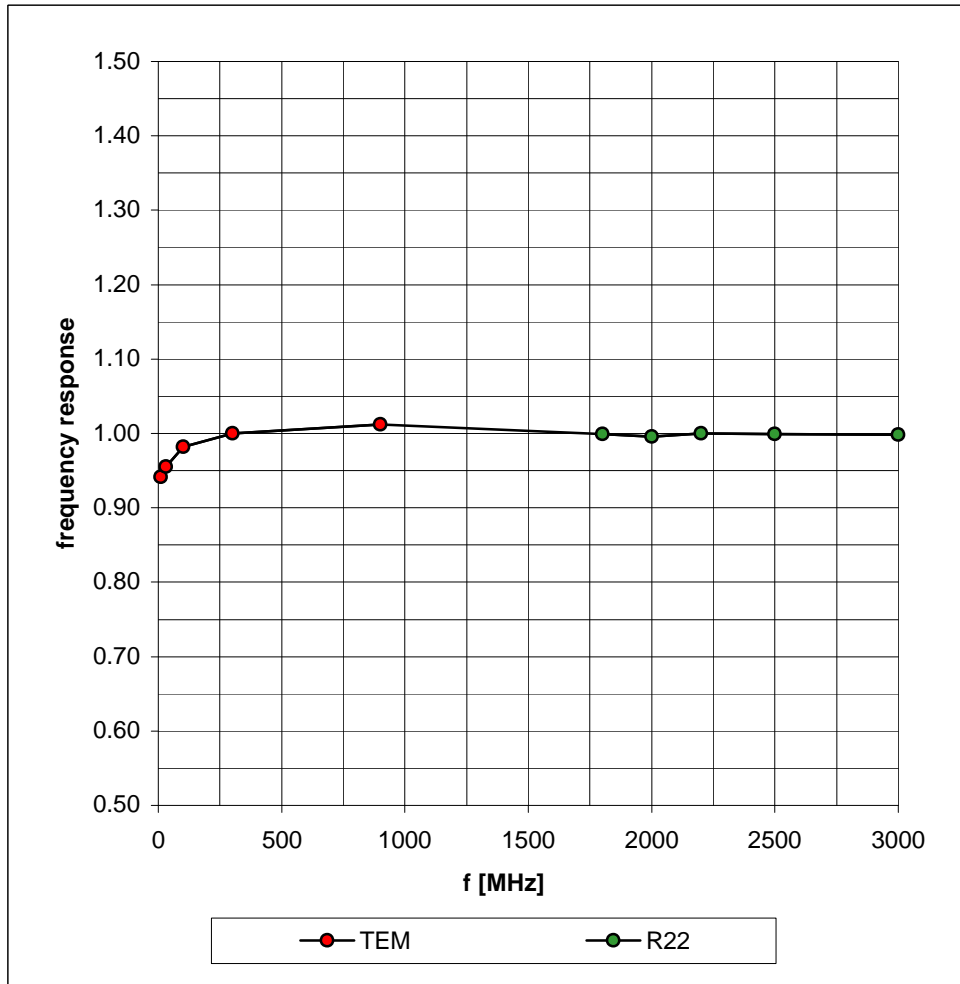


### Isotropy Error (f), q = 0°

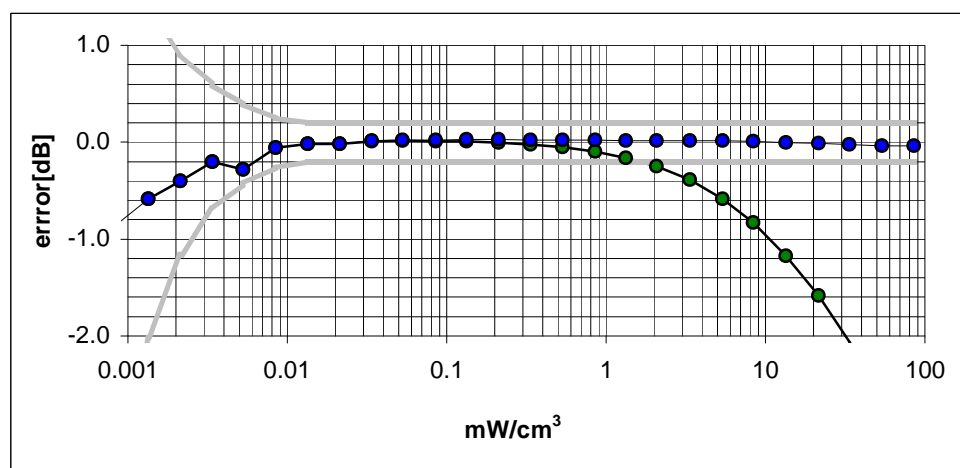
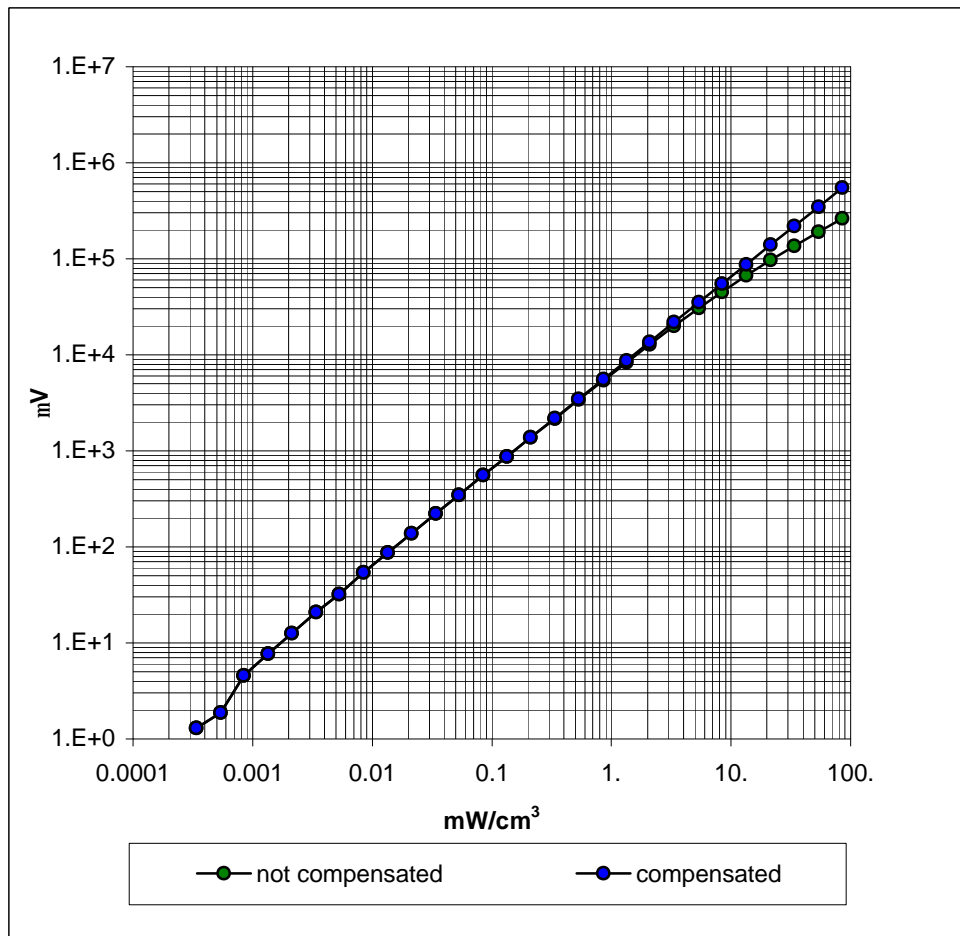


# Frequency Response of E-Field

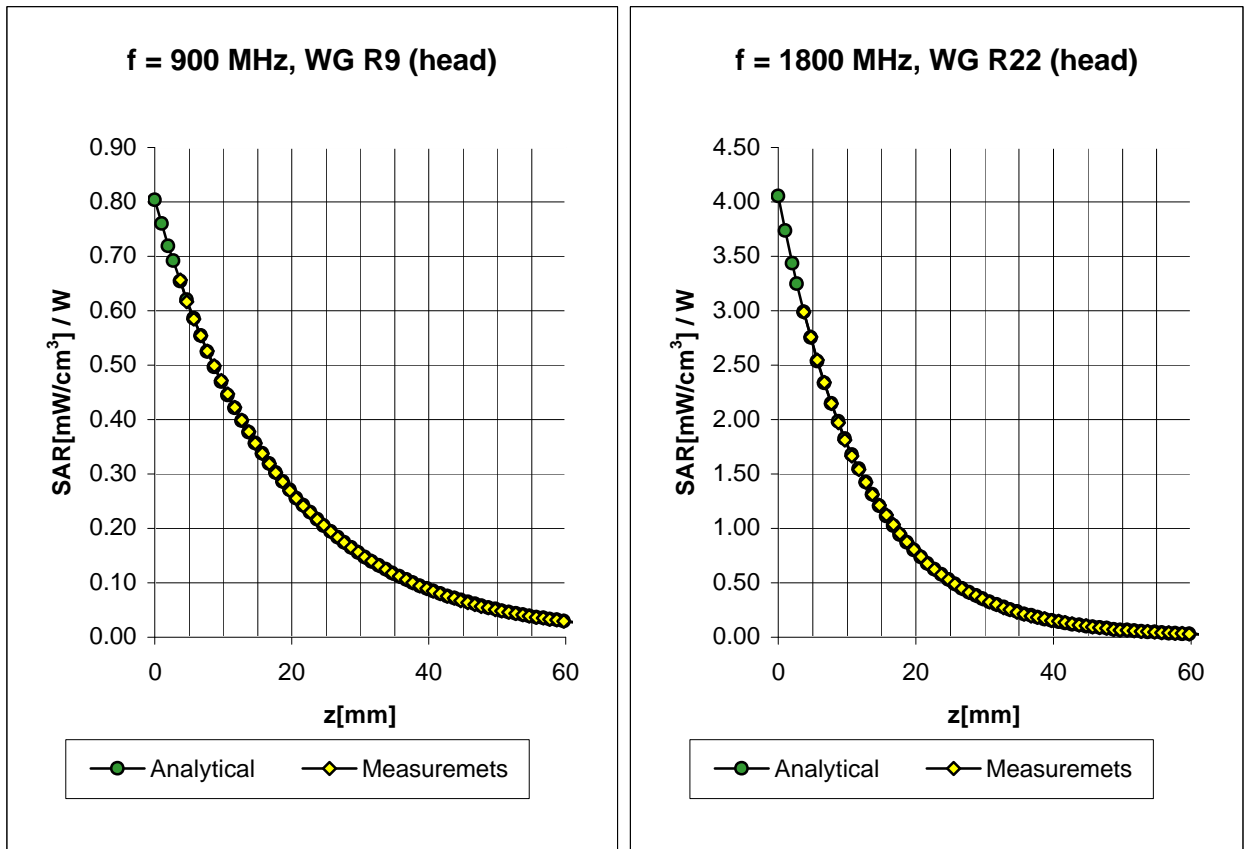
( TEM-Cell:ifi110, Waveguide R22)



### Dynamic Range f(SAR<sub>brain</sub>) ( Waveguide R22 )



# Conversion Factor Assessment



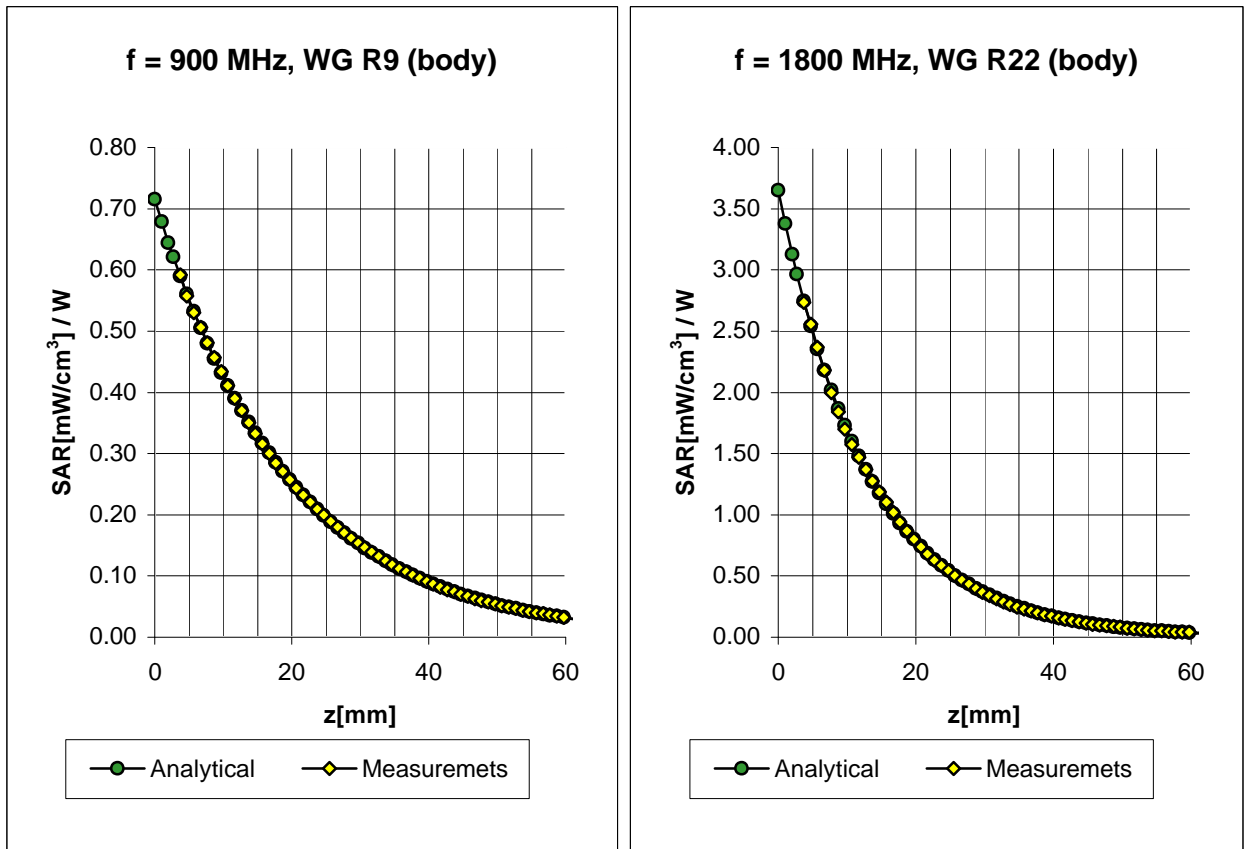
<b>Head</b>	<b>900 MHz</b>	$\epsilon_r = 41.5 \pm 5\%$	$s = 0.97 \pm 5\% \text{ mho/m}$
<b>Head</b>	<b>835 MHz</b>	$\epsilon_r = 41.5 \pm 5\%$	$s = 0.90 \pm 5\% \text{ mho/m}$
	ConvF X	<b>6.6</b> $\pm 9.5\%$ (k=2)	Boundary effect:
	ConvF Y	<b>6.6</b> $\pm 9.5\%$ (k=2)	Alpha <b>0.40</b>
	ConvF Z	<b>6.6</b> $\pm 9.5\%$ (k=2)	Depth <b>2.38</b>
<b>Head</b>	<b>1800 MHz</b>	$\epsilon_r = 40.0 \pm 5\%$	$s = 1.40 \pm 5\% \text{ mho/m}$
<b>Head</b>	<b>1900 MHz</b>	$\epsilon_r = 40.0 \pm 5\%$	$s = 1.40 \pm 5\% \text{ mho/m}$
	ConvF X	<b>5.4</b> $\pm 9.5\%$ (k=2)	Boundary effect:
	ConvF Y	<b>5.4</b> $\pm 9.5\%$ (k=2)	Alpha <b>0.57</b>
	ConvF Z	<b>5.4</b> $\pm 9.5\%$ (k=2)	Depth <b>2.18</b>

ET3DV6 SN:1387

February 22, 2002



# Conversion Factor Assessment



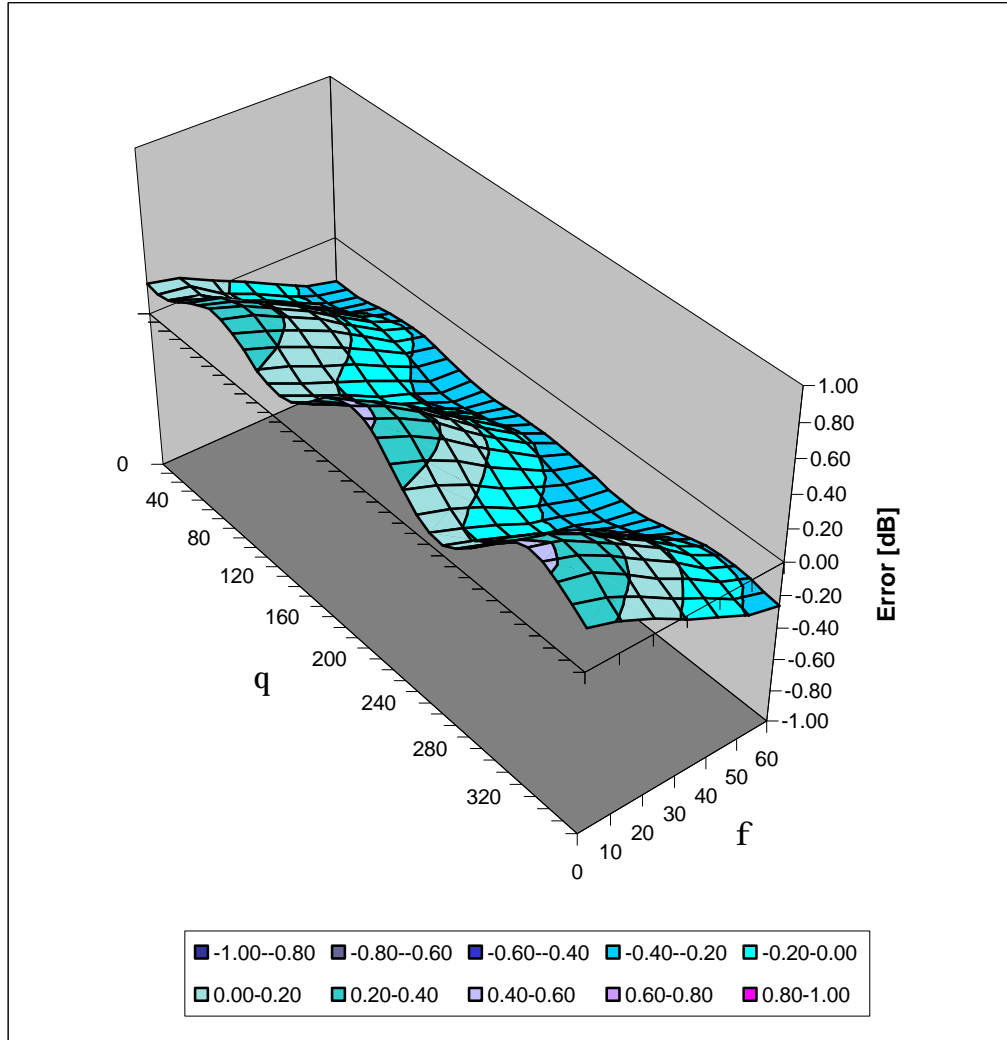
<b>Body</b>	<b>900 MHz</b>	$e_r = 55.0 \pm 5\%$	$s = 1.05 \pm 5\% \text{ mho/m}$
<b>Body</b>	<b>835 MHz</b>	$e_r = 55.2 \pm 5\%$	$s = 0.97 \pm 5\% \text{ mho/m}$
	ConvF X	<b>6.3</b> $\pm 9.5\%$ (k=2)	Boundary effect:
	ConvF Y	<b>6.3</b> $\pm 9.5\%$ (k=2)	Alpha <b>0.42</b>
	ConvF Z	<b>6.3</b> $\pm 9.5\%$ (k=2)	Depth <b>2.44</b>
<b>Body</b>	<b>1800 MHz</b>	$e_r = 53.3 \pm 5\%$	$s = 1.52 \pm 5\% \text{ mho/m}$
<b>Body</b>	<b>1900 MHz</b>	$e_r = 53.3 \pm 5\%$	$s = 1.52 \pm 5\% \text{ mho/m}$
	ConvF X	<b>5.0</b> $\pm 9.5\%$ (k=2)	Boundary effect:
	ConvF Y	<b>5.0</b> $\pm 9.5\%$ (k=2)	Alpha <b>0.76</b>
	ConvF Z	<b>5.0</b> $\pm 9.5\%$ (k=2)	Depth <b>2.01</b>

ET3DV6 SN:1387

February 22, 2002

# Deviation from Isotropy in HSL

Error (qf), f = 900 MHz



## Additional Conversion Factors for Dosimetric E-Field Probe

Type:

**ET3DV6**

Serial Number:

**1387**

Place of Assessment:

**Zurich**

Date of Assessment:

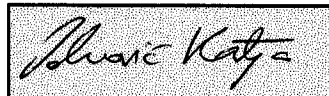
**February 25, 2002**

Probe Calibration Date:

**February 22, 2002**

Schmid & Partner Engineering AG hereby certifies that conversion factor(s) of this probe have been evaluated on the date indicated above. The assessment was performed using the FDTD numerical code SEMCAD of Schmid & Partner Engineering AG. Since the evaluation is coupled with measured conversion factors, it has to be recalculated yearly, i.e., following the re-calibration schedule of the probe. The uncertainty of the numerical assessment is based on the extrapolation from measured value at 900 MHz or at 1800 MHz.

Assessed by:



## Dosimetric E-Field Probe ET3DV6 SN:1387

Conversion Factor ( $\pm$  standard deviation)

150 MHz	ConvF	$9.2 \pm 8\%$	$e_r = 52.3$ $S = 0.76 \text{ mho/m}$ (head tissue)
300 MHz	ConvF	$8.0 \pm 8\%$	$e_r = 45.3$ $S = 0.87 \text{ mho/m}$ (head tissue)
450 MHz	ConvF	$7.3 \pm 8\%$	$e_r = 43.5$ $S = 0.87 \text{ mho/m}$ (head tissue)
2450 MHz	ConvF	$4.7 \pm 8\%$	$e_r = 39.2$ $S = 1.80 \text{ mho/m}$ (head tissue)
150 MHz	ConvF	$8.8 \pm 8\%$	$e_r = 61.9$ $S = 0.80 \text{ mho/m}$ (body tissue)
450 MHz	ConvF	$7.7 \pm 8\%$	$e_r = 56.7$ $S = 0.94 \text{ mho/m}$ (body tissue)
2450 MHz	ConvF	$4.3 \pm 8\%$	$e_r = 52.7$ $S = 1.95 \text{ mho/m}$ (body tissue)

## **APPENDIX E - MEASURED FLUID DIELECTRIC PARAMETERS**

# 300MHz System Performance Check

## Measured Fluid Dielectric Parameters (Brain)

August 21, 2002

Frequency	$\epsilon'$	$\epsilon''$
250.000000 MHz	47.5573	59.3794
252.000000 MHz	47.4345	59.1479
254.000000 MHz	47.3042	58.8388
256.000000 MHz	47.2498	58.4464
258.000000 MHz	47.2232	58.1701
260.000000 MHz	47.0974	57.8596
262.000000 MHz	46.9971	57.6309
264.000000 MHz	46.8973	57.2321
266.000000 MHz	46.7897	56.9029
268.000000 MHz	46.6945	56.6862
270.000000 MHz	46.7578	56.3519
272.000000 MHz	46.6516	56.1560
274.000000 MHz	46.5615	55.8120
276.000000 MHz	46.5103	55.5448
278.000000 MHz	46.4349	55.3289
280.000000 MHz	46.3440	54.9536
282.000000 MHz	46.2797	54.6846
284.000000 MHz	46.1889	54.4368
286.000000 MHz	46.1573	54.1864
288.000000 MHz	46.0742	53.8577
290.000000 MHz	45.9413	53.5964
292.000000 MHz	45.9110	53.3424
294.000000 MHz	45.8153	53.1414
296.000000 MHz	45.8725	52.7712
298.000000 MHz	45.8485	52.4425
300.000000 MHz	45.8184	52.3142
302.000000 MHz	45.6856	52.0045
304.000000 MHz	45.6270	51.8563
306.000000 MHz	45.5204	51.6047
308.000000 MHz	45.4321	51.3294
310.000000 MHz	45.3679	51.1080
312.000000 MHz	45.2426	50.8156
314.000000 MHz	45.2568	50.5648
316.000000 MHz	45.2418	50.2937
318.000000 MHz	45.1230	50.1566

# 150MHz EUT Evaluation (Body)

## Measured Fluid Dielectric Parameters (Muscle)

August 21, 2002

Frequency	$\epsilon'$	$\epsilon''$
50.000000 MH	72.26	270.1656
55.000000 MH	69.69	247.5683
60.000000 MH	67.03	227.2481
65.000000 MH	66.80	210.0444
70.000000 MH	66.45	194.5318
75.000000 MH	66.49	182.5929
80.000000 MH	65.74	171.8612
85.000000 MH	64.63	163.1289
90.000000 MH	64.67	153.7203
95.000000 MH	65.03	146.5735
100.000000 MI	64.28	139.8589
105.000000 MI	64.17	134.3360
110.000000 MI	63.59	128.5882
115.000000 MI	63.08	123.5498
120.000000 MI	62.76	119.1243
125.000000 MI	62.50	114.5514
130.000000 MI	61.86	110.3518
135.000000 MI	62.11	107.2300
140.000000 MI	61.74	103.2750
145.000000 MI	61.81	100.2151
150.000000 MI	61.131	97.6023
155.000000 MI	60.997	94.3977
160.000000 MI	60.854	92.1672
165.000000 MI	60.633	89.5733
170.000000 MI	60.499	87.4156
175.000000 MI	60.291	85.2426
180.000000 MI	60.350	82.9117
185.000000 MI	60.262	80.8502
190.000000 MI	60.084	79.2965
195.000000 MI	59.846	77.5063
200.000000 MI	59.709	76.0658
205.000000 MI	59.482	74.5195
210.000000 MI	59.225	73.2277
215.000000 MI	58.994	71.7209
220.000000 MI	58.831	70.4648
225.000000 MI	58.710	69.2217
230.000000 MI	58.518	67.9842
235.000000 MI	58.343	66.7073
240.000000 MI	58.091	65.6657
245.000000 MI	57.936	64.5014
250.000000 MI	57.799	63.4814

# 300MHz System Performance Check

## Measured Fluid Dielectric Parameters (Brain)

August 22, 2002

Frequency	e'	e''
250.000000 MHz	47.2468	59.2527
252.000000 MHz	47.1240	59.0205
254.000000 MHz	46.9938	58.7119
256.000000 MHz	46.9393	58.3196
258.000000 MHz	46.9127	58.0423
260.000000 MHz	46.7869	57.7322
262.000000 MHz	46.6857	57.5030
264.000000 MHz	46.5869	57.1061
266.000000 MHz	46.4792	56.7755
268.000000 MHz	46.3840	56.5588
270.000000 MHz	46.4473	56.2244
272.000000 MHz	46.3411	56.0291
274.000000 MHz	46.2510	55.6847
276.000000 MHz	46.1245	55.4175
278.000000 MHz	46.4349	55.2015
280.000000 MHz	46.3350	54.8268
282.000000 MHz	45.9692	54.5565
284.000000 MHz	45.8767	54.3095
286.000000 MHz	45.8468	54.0590
288.000000 MHz	45.7644	53.7312
290.000000 MHz	45.6311	53.4682
292.000000 MHz	45.6005	53.2155
294.000000 MHz	45.5048	53.1400
296.000000 MHz	45.5620	52.6438
298.000000 MHz	45.5383	52.3151
300.000000 MHz	45.5079	52.1868
302.000000 MHz	45.3751	51.8774
304.000000 MHz	45.3165	51.7286
306.000000 MHz	45.2099	51.4770
308.000000 MHz	45.1216	51.2021
310.000000 MHz	45.0574	50.9805
312.000000 MHz	44.9321	50.6875
314.000000 MHz	44.9464	50.4376
316.000000 MHz	44.9313	50.1663
318.000000 MHz	44.8125	50.2920



# 150MHz EUT Evaluation (Face)

## Measured Fluid Dielectric Parameters (Brain)

August 22, 2002

Frequency	$\epsilon'$	$\epsilon''$
50.000000 MH	63.35	247.5344
55.000000 MH	62.35	226.6740
60.000000 MH	62.01	209.7414
65.000000 MH	61.58	192.5995
70.000000 MH	60.24	180.1332
75.000000 MH	60.03	168.6953
80.000000 MH	59.02	159.3715
85.000000 MH	58.60	151.0743
90.000000 MH	58.48	143.0051
95.000000 MH	57.78	135.9762
100.000000 MI	57.15	130.3801
105.000000 MI	56.98	124.8288
110.000000 MI	56.46	119.7957
115.000000 MI	55.95	115.7321
120.000000 MI	55.20	111.7475
125.000000 MI	55.28	107.3826
130.000000 MI	54.63	104.2407
135.000000 MI	54.60	100.6897
140.000000 MI	54.055	97.5370
145.000000 MI	53.729	94.3338
150.000000 MI	53.327	91.9499
155.000000 MI	53.012	89.3963
160.000000 MI	53.066	87.2081
165.000000 MI	52.710	85.0031
170.000000 MI	52.357	83.0002
175.000000 MI	52.149	81.1720
180.000000 MI	52.218	78.9884
185.000000 MI	52.101	77.1567
190.000000 MI	51.614	75.6007
195.000000 MI	51.494	74.1391
200.000000 MI	51.222	72.5550
205.000000 MI	50.991	71.1453
210.000000 MI	50.522	69.8620
215.000000 MI	50.343	68.6148
220.000000 MI	50.232	67.4368
225.000000 MI	49.866	66.0743
230.000000 MI	49.669	64.8647
235.000000 MI	49.498	63.6862
240.000000 MI	49.158	62.7105
245.000000 MI	48.976	61.6754
250.000000 MI	48.844	60.7600

# 300MHz System Performance Check

## Measured Fluid Dielectric Parameters (Brain)

August 30, 2002

Frequency	$\epsilon'$	$\epsilon''$
250.000000 MHz	47.4773	59.8869
252.000000 MHz	47.3537	59.6554
254.000000 MHz	47.2241	59.3463
256.000000 MHz	47.1700	58.9539
258.000000 MHz	47.1434	58.6776
260.000000 MHz	47.0176	58.3671
262.000000 MHz	46.9173	58.1384
264.000000 MHz	46.8178	57.7396
266.000000 MHz	46.7096	57.4104
268.000000 MHz	46.6145	57.1937
270.000000 MHz	46.6480	56.8594
272.000000 MHz	46.5718	56.6635
274.000000 MHz	46.4817	56.3195
276.000000 MHz	46.4305	56.0523
278.000000 MHz	46.3558	55.8364
280.000000 MHz	46.2642	55.4611
282.000000 MHz	46.1997	55.1921
284.000000 MHz	46.1091	54.9443
286.000000 MHz	46.0775	54.6939
288.000000 MHz	45.9944	54.3652
290.000000 MHz	45.8616	54.1039
292.000000 MHz	45.8312	53.8499
294.000000 MHz	45.7355	53.6490
296.000000 MHz	45.7926	53.2787
298.000000 MHz	45.7687	52.9500
300.000000 MHz	45.7382	52.8213
302.000000 MHz	45.6059	52.5122
304.000000 MHz	45.5478	52.3638
306.000000 MHz	45.4515	52.1122
308.000000 MHz	45.3527	51.8369
310.000000 MHz	45.1634	51.6155
312.000000 MHz	45.2321	51.3231
314.000000 MHz	45.1770	51.0723
316.000000 MHz	45.1620	50.8012
318.000000 MHz	45.0432	50.6641

# 150MHz EUT Evaluation (Body)

## Measured Fluid Dielectric Parameters (Muscle)

August 30, 2002

Frequency	$\epsilon'$	$\epsilon''$
50.000000 MH	65.84	262.2600
55.000000 MH	64.92	239.4650
60.000000 MH	64.74	219.4220
65.000000 MH	64.86	203.0688
70.000000 MH	64.35	189.5283
75.000000 MH	64.15	177.1764
80.000000 MH	64.35	166.8035
85.000000 MH	63.50	158.1663
90.000000 MH	63.43	149.4534
95.000000 MH	63.13	142.1345
100.000000 MI	62.61	136.1273
105.000000 MI	62.79	130.3419
110.000000 MI	62.43	124.4695
115.000000 MI	62.19	119.8828
120.000000 MI	62.03	115.5672
125.000000 MI	61.88	111.3953
130.000000 MI	61.39	107.5300
135.000000 MI	61.34	103.9824
140.000000 MI	61.25	100.4512
145.000000 MI	61.085	97.5343
150.000000 MI	60.696	94.6324
155.000000 MI	60.636	92.0519
160.000000 MI	60.485	89.7137
165.000000 MI	60.147	87.2288
170.000000 MI	60.163	85.0794
175.000000 MI	59.905	82.8826
180.000000 MI	59.865	80.7418
185.000000 MI	59.681	78.8379
190.000000 MI	59.708	77.0572
195.000000 MI	59.460	75.3895
200.000000 MI	59.332	73.8344
205.000000 MI	59.028	72.3296
210.000000 MI	58.837	70.8850
215.000000 MI	58.779	69.5706
220.000000 MI	58.579	68.3660
225.000000 MI	58.409	67.0443
230.000000 MI	58.209	65.7638
235.000000 MI	58.145	64.7175
240.000000 MI	57.755	63.7142
245.000000 MI	57.732	62.6776
250.000000 MI	57.492	61.6715

## **APPENDIX F - SAR TEST SETUP & EUT PHOTOGRAPHS**

**FACE-HELD SAR TEST SETUP PHOTOGRAPHS**  
**Front of Radio Transceiver - 2.5cm Separation Distance**



2.5cm Separation Distance - Antenna #1 (136-151MHz)



2.5cm Separation Distance - Antenna #2 (150-162MHz)



2.5cm Separation Distance - Antenna #3 (162-174MHz)

**FACE-HELD SAR TEST SETUP PHOTOGRAPHS**  
Front of Speaker-Microphone with Antenna  
2.5cm Separation Distance



2.5cm Separation Distance - Antenna #1 (136-151MHz)

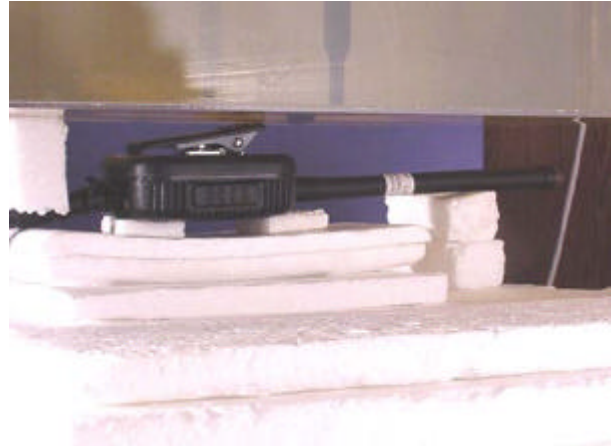


2.5cm Separation Distance - Antenna #2 (150-162MHz)

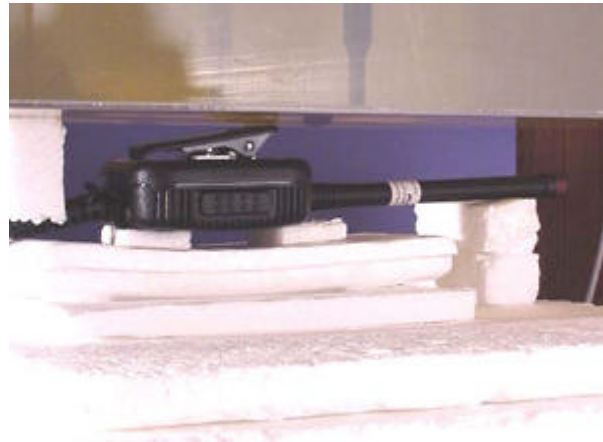


2.5cm Separation Distance - Antenna #3 (162-174MHz)

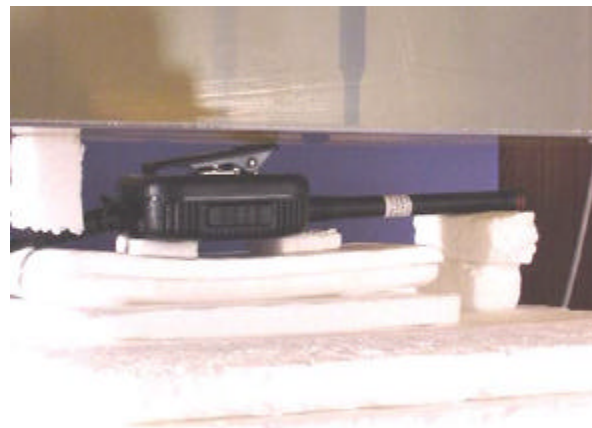
**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**Back of Speaker-Microphone with Antenna**  
**1.3cm Metal Lapel-Clip Separation Distance**



1.3cm Lapel-Clip Separation - Antenna #1 (136-151MHz)



1.3cm Lapel-Clip Separation - Antenna #2 (150-162MHz)



1.3cm Lapel-Clip Separation - Antenna #3 (162-174MHz)

**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**Back of Radio Transceiver with Leather Case (Belt-Loop Type)**  
**1.7cm Leather Case/Belt-Loop Separation Distance**



1.7cm Case/Loop Separation - Antenna #1 (136-151MHz)



1.7cm Case/Loop Separation - Antenna #2 (150-162MHz)



1.7cm Case/Loop Separation - Antenna #3 (162-174MHz)



**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**Back of Radio Transceiver with Leather Case (Swivel Type) & Belt-Loop**  
**4.5cm Leather Case/Belt-Loop Separation Distance**



4.5cm Case & Loop Separation - Antenna #1 (136-151MHz)



4.5cm Case & Loop Separation - Antenna #2 (150-162MHz)



4.5cm Case & Loop Separation - Antenna #3 (162-174MHz)

**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**Back of Radio Transceiver with Nylon Case (Swivel Type) & Belt-Loop**  
**4.0 cm Nylon Case & Belt-Loop Separation Distance**



4.0cm Case & Loop Separation - Antenna #1 (136-151MHz)



4.0cm Case & Loop Separation - Antenna #2 (150-162MHz)



4.0cm Case & Loop Separation - Antenna #3 (162-174MHz)

**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
**Back of Radio Transceiver with Metal Belt-Clip**  
**1.1cm Metal Belt-Clip Separation Distance**



1.1cm Belt-Clip Separation - Antenna #1 (136-151MHz)

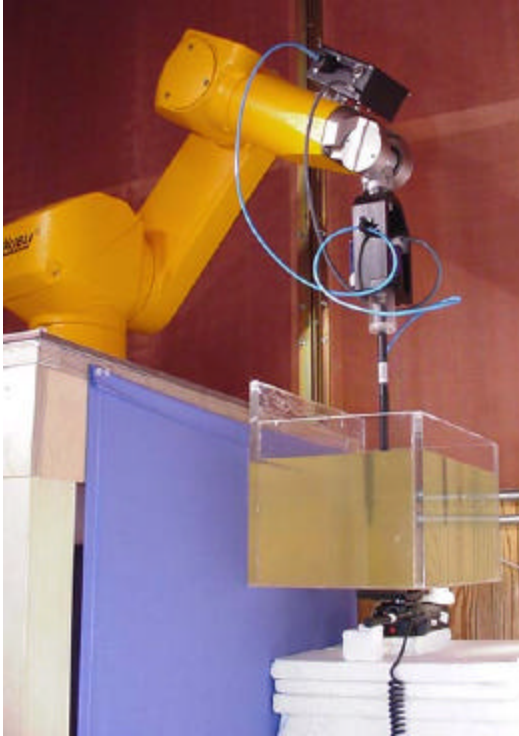


1.1cm Belt-Clip Separation - Antenna #2 (150-162MHz)



1.1cm Belt-Clip Separation - Antenna #3 (162-174MHz)

**BODY-WORN SAR TEST SETUP PHOTOGRAPHS**  
Back of Radio Transceiver with Belt-Loop & Swivel  
3.5cm Belt-Loop Separation Distance



3.5cm Belt-Loop Separation - Antenna #1 (136-151MHz)



3.5cm Belt-Loop Separation - Antenna #2 (150-162MHz)



3.5cm Belt-Loop Separation - Antenna #3 (162-174MHz)

## EUT PHOTOGRAPHS



**EUT (P/N: T1H-V042)  
with Antenna #1  
(P/N: KRE1011219/1)**



**EUT with Antenna #2  
(P/N: KRE1011219/2)**



**EUT with Antenna #3  
(P/N: KRE1011219/3)**



**EUT with alternate Front Bezel  
(P/N: T1H-VSAR02)**

## EUT PHOTOGRAPHS



Left Side of EUT



Back of EUT



Right Side of EUT

**EUT PHOTOGRAPHS**



**Front of EUT  
with Speaker-Mic Antenna Version Plus  
(P/N: KRY1011617/84R1A, KRY1011617/184R1A)  
& Antenna #1 (P/N: KRE1011219/1)**



**Front of EUT  
with Speaker-Mic Antenna Version Plus  
(P/N: KRY1011617/84R1A, KRY1011617/184R1A)  
& Antenna #2 (P/N: KRE1011219/2)**



**Front of EUT  
with Speaker-Mic Antenna Version Plus  
(P/N: KRY1011617/84R1A, KRY1011617/184R1A)  
& Antenna #3 (P/N: KRE1011219/3)**



**Back of Speaker-Mic Antenna Version Plus  
(P/N: KRY1011617/84R1A, KRY1011617/184R1A)  
with Antenna #1 (P/N: KRE1011219/1)**



**Back of Speaker-Mic Antenna Version Plus  
(P/N: KRY1011617/84R1A, KRY1011617/184R1A)  
with Antenna #2 (P/N: KRE1011219/2)**



**Back of Speaker-Mic Antenna Version Plus  
(P/N: KRY1011617/84R1A, RY1011617/184R1A)  
with Antenna #3 (P/N: KRE1011219/3)**

## EUT PHOTOGRAPHS



**Front of EUT  
with Leather Case/Belt-Loop  
(P/N: KRY1011638/1)**



**Back of EUT  
with Leather Case/Belt-Loop  
(P/N: KRY1011638/1)**



**Left Side of EUT  
with Leather Case/Belt-Loop  
(P/N: KRY1011638/1)**



**Right Side of EUT  
with Leather Case/Belt-Loop  
(P/N: KRY1011638/1)**



**Leather Case/Belt-Loop  
(P/N: KRY1011638/1)**



### EUT PHOTOGRAPHS



**Front of EUT  
with Leather Case,  
Swivel, & Belt-Loop  
(P/N: KRY1011639/1)**



**Back of EUT  
with Leather Case,  
Swivel, & Belt-Loop  
(P/N: KRY1011639/1)**



**Left Side of EUT  
with Leather Case,  
Swivel, & Belt-Loop  
(P/N: KRY1011639/1)**



**Right Side of EUT  
with Leather Case,  
Swivel, & Belt-Loop  
(P/N: KRY1011639/1)**



**Leather Case with Swivel Mount  
(P/N: KRY1011639/1)**



**Leather Case with Swivel Mount  
(P/N: KRY1011639/1)**

### EUT PHOTOGRAPHS



Front of EUT  
with Nylon Case & Belt-Loop  
(P/N: KRY1011648/1)



Back of EUT  
with Nylon Case & Belt-Loop  
(P/N: KRY1011648/1)



Left Side of EUT  
with Nylon Case & Belt-Loop  
(P/N: KRY1011648/1)



Right Side of EUT  
with Nylon Case & Belt-Loop  
(P/N: KRY1011648/1)



Nylon Case  
(P/N: KRY1011648/1)



Nylon Case  
(P/N: KRY1011648/1)

### EUT PHOTOGRAPHS



**Left Side of EUT  
with Metal Belt-Clip  
(P/N: KRY1011647/1)**



**Back of EUT  
with Metal Belt-Clip  
(P/N: KRY1011647/1)**



**Right Side of EUT  
with Metal Belt-Clip  
(P/N: KRY1011647/1)**



**Metal Belt-Clip  
(P/N: KRY1011647/1)**



**Metal Belt-Clip  
(P/N: KRY1011647/1)**

**EUT PHOTOGRAPHS**



**Left Side of EUT  
with Belt-Loop & Swivel  
(P/N: KRY1011609/1)**



**Back of EUT  
with Belt-Loop & Swivel  
(P/N: KRY1011609/1)**



**Right Side of EUT  
with Belt-Loop & Swivel  
(P/N: KRY1011609/1)**



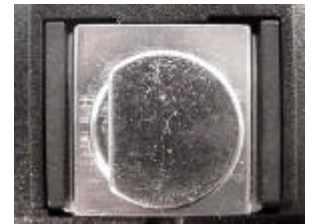
**Belt-Loop  
(P/N: KRY1011609/1)**



**Belt-Loop  
(P/N: KRY1011609/1)**



**Swivel Socket  
(P/N: KRY1011608/2)**



**Swivel attached to EUT**



**Swivel Socket  
(P/N: KRY1011608/2)**



**EUT without Swivel**

## EUT PHOTOGRAPHS



Speaker-Microphone Accessory  
(P/N: KRY1011617/83R1A, KRY1011617/183R1A)



Speaker-Microphone Accessory  
(P/N: KRY1011617/83R1A, KRY1011617/183R1A)

## EUT PHOTOGRAPHS



**Helical Coil Antenna #1 - 136-151MHz**  
(P/N: KRE1011219/1)



**Helical Coil Antenna #2 - 150-162MHz**  
(P/N: KRE1011219/2)



**Helical Coil Antenna #3 - 162-174MHz**  
(P/N: KRE1011219/3)

**EUT PHOTOGRAPHS**



**Nickel Cadmium Battery – Not Intrinsically Safe  
(P/N: BKB191210/3)**



**Nickel Cadmium Battery – Intrinsically Safe  
(P/N: BKB191210/5)**



**Nickel Metal Hydride Battery – Not Intrinsically Safe  
(P/N: BKB191210/4)**



**Nickel Metal Hydride Battery – Not Intrinsically Safe  
(P/N: BKB191210/6)**